

Appl. No. 09/991,627 Amdt. dated Reply to Final Office action of September 12, 2005

**Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

Claim 1. (previously presented) An isolated biopolymer marker peptide consisting of SEQ ID NO: 2.

Claims 2-38. (cancelled)

Claim 39. (currently amended-withdrawn) A method for determining the presence of an isolated biopolymer marker consisting of SEQ ID NO: 2 comprising:

- (a) obtaining a sample from a patient;
- (b) conducting mass spectrometric analysis on said sample in ~~a manner effective to maximize analysis of~~ to elucidate peptide fragments contained therein and comparing mass spectrum profiles of said isolated biopolymer marker consisting of SEQ ID NO:2 to mass spectrum profiles of peptides obtained and analyzed for said sample; and
- (c) confirming the presence of said isolated biopolymer marker consisting of SEQ ID NO:2 in said sample displaying a peak profile

Appl. No. 09/991,627 Amdt. dated Reply to Final Office action of September 12, 2005

at about 1189 daltons in said mass spectrum profile;

wherein the presence of said isolated biopolymer marker consisting of SEQ ID NO:2 is indicative of a link to insulin resistance.

Claim 40. (withdrawn) The method of claim 39, wherein said sample is an unfractionated body fluid or a tissue sample.

Claim 41. (withdrawn) The method of claim 39, wherein said sample is selected from the group consisting of blood, blood products, urine, saliva, cerebrospinal fluid, and lymph.

Claim 42. (currently amended) The method of claim 39, wherein said mass spectrometric analysis is selected from the group consisting of Surface Enhanced Laser Desorption Ionization (SELDI) mass spectrometry (MS), ~~Maldi-Qq-TOF~~ Matrix-Assisted Laser Desorption/Quadrupole quadrupole Time-Of-Flight (MALDI-Qq-TOF) Mass Spectrometry, [[MS/MS]] Multiple Sequential Mass Spectrometry (MS/MS), Multiple Sequential Time-Of-Flight/Time-Of-Flight Mass Spectrometry (TOF-TOF) TOF-TOF, Electrospray Ionization/ Ionization Time-Of-Flight Mass Spectrometry (ESI-Q-TOF) ESI-Q-TOF and ION-TRAP Mass Spectrometry.

Appl. No. 09/991,627 Amdt. dated Reply to Final Office action of September 12, 2005

Claim 43. (withdrawn) The method of claim 39, wherein said patient is a human.

Claim 44. (currently amended-withdrawn) [[A]] An insulin resistance diagnostic kit comprising: (a) an isolated biopolymer marker peptide selected from the group consisting of SEQ ID NO: 2 and (b) an antibody that binds to said isolated biopolymer marker peptide in a sample from a patient.

Claim 45. (currently amended-withdrawn) The insulin resistance diagnostic kit of claim 44, wherein said antibody is immobilized on a solid support.

Claim 46. (currently amended-withdrawn) The insulin resistance diagnostic kit of claim 44, wherein said antibody is labeled.